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Transportation: Existing Infrastructure Could Put Area at Research Forefront

BY LEE ZION

CHULA VISTA - San Diego could reap a fortune in research and development investment if the nation moves ahead with plans to reduce its dependency on foreign oil.

Rep. Bob Filner, D-San Diego, met with scientists, activists and others Feb. 20 in Chula Vista to discuss plans to create federal legislation to help promote interest in cars powered on alternate fuel - and promote re- search and development facilities in San Diego County.

The problem is that about half of the oil used in the United States comes from overseas - including unstable Arab nations, Filner said.

If cars and light trucks became more fuel efficient, this would greatly reduce - and, perhaps, eliminate - the need for foreign oil, he said.

However, cars haven't changed much in the past 60 years. Most vehicles on the road today are still powered by an internal combustion engine that's largely unchanged since the days of Henry Ford's Model T, Filner said.

Meanwhile, Japanese automakers are trying something new. The Toyota Prius and the Honda Insight are both hybrid gasoline-electric vehicles with exceptional gas mileage, said James Bums, an associate professor at San Diego State University.

These early attempts at hybrid cars have a few problems, such as low horsepower. But Bums credited the Japanese automakers for creating a market for hybrids, he said. Bums has designed and built a hybrid vehicle. The Enigma, a demonstration project by SDSU, is a diesel-electric sports car that gets a reported 80 miles per gallon on the freeway.

The car, funded by a $286,000 grant from the California Energy Commission, appeared in the March issue of *Road & Track* magazine.

Bums assembled the car from readily available technology and encouraged major U.S. car manufacturers to do the same. If a car like the Enigma were mass-produced, prices would fall to the point where it would become marketable, he said.

In the meantime, Burns hopes his hybrid sports car will attract the attention of large companies with fleets of trucks. His plan is to show that the technology in the Enigma can be transferred to delivery trucks, doubling their fuel economy and range.

Bums added that the military is interested in converting its fleet of HumVees into hybrids. A hybrid HumVee would have a number of tactical advantages, such as greater range and, if operated in purely electric mode, greater stealth, Bums said.

Existing Facilities Bums said there is already a building in Poway that could handle large-scale jobs like this. That facility will become available in the next few months, he said.

The building being vacated by Excellsis, a joint automotive industry research and development facility set up to promote alternative power vehicles, could be taken over to handle the HumVee conversions. This would bring a lot of jobs to San Diego County, Bums said.

"If you want a place where research and applied development work to make real products ... we're ready to move in there," he said. "We have the financial backing. We have a number of things that we can do. What it's going to take is higher-level political will."

Filner agreed.

"It's a great facility. We would like to maintain control over said facility and keep San Diego in the forefront here, in this type of development of technology," he said.

This technology would have several benefits beyond the jobs it would bring to San Diego. It would reduce our dependence on "foreign oil, while at the. same time cutting the pollution cars create, Filner said."

There would be other benefits, as well. China, for example, has recognized that its auto emissions are a serious problem and is now a ready market for cleaner cars, he said.

If Americans could sell domestically made, cleaner autos to China, that would go a long way to reversing the U.S. trade deficit, he said.

The Ford Motor Co., meanwhile, announced it plans to market its own environmentally friendly car by 2004. The Ford Focus FCV is a powered by a fuel cell, a battery-like device which forms electricity from hydrogen fuel, said Anthony Eggert, spokesman for Ford.

The Focus FCV would be a limited-volume production vehicle aimed at commercial fleet operators, Eggert said.